

Connectors, Terminal, Aluminum Compression, Stacking and Non-Stacking



1. Scope

This standard covers the requirements for stacking and non-stacking aluminum compression terminal connectors.

This standard applies to Seattle City Light stock numbers listed in Section 8.

2. Application

Aluminum compression terminal connectors are used to connect aluminum or copper cables to aluminum or copper equipment terminals or bus.

Requirements for copper compression terminal connectors are specified in SCL Material Standard 6770.70.

3. Industry Standards

Aluminum compression terminal connectors shall meet the applicable requirements of the latest revisions of the following industry standards:

ANSI C119.4, American National Standard for Electric Connectors— Connectors for Use between Aluminum-to-Aluminum and Aluminum-to-Copper Conductors Designed for Normal Operation at or Below 93°C and Copper-to-Copper Conductors Designed for Normal Operation at or Below 100°C

ANSI/NEMA CC1; Electric Power Connection for Substations

4. Requirements

Aluminum compression terminal connectors shall be made of tin-plated aluminum.

Design and dimensions of terminals shall be in accordance with tables 4a and 4b, and Figure 4a to ensure that the stacking-type connectors will fit on top of the non-stacking-type connectors and that the non-stacking-type connectors will fit beneath the stacking-type connectors.

Connectors shall include a two-hole NEMA pad, with the exception of Stock No. 651296, which shall have a 4-hole NEMA pad as specified in NEMA CC1 figures C2 and C3.

Connector barrels shall be factory-filled with a measured amount of oxide-inhibiting compound.

Connector ends shall be sealed to prevent leakage or contamination of the inhibitor during shipping and storage.

Figure 4a. Connector Types

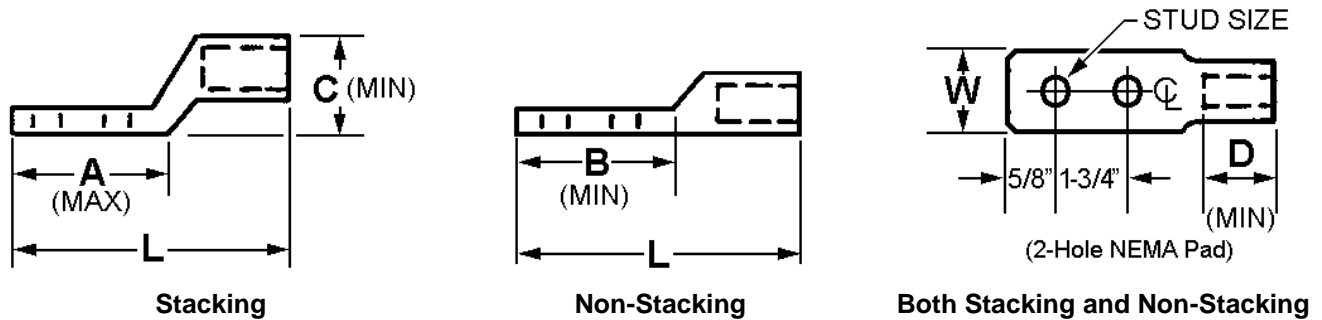


Table 4a. Non-Stacking Connector Dimensions

Stock No.	Conductor Size (kcmil)	Dimensions (in)					Hole Diameter, nominal
		B, min.	D, min.	L	W (Pad Width)		
651267	300	3-9/16	2-1/4	6-1/2 + 1/4	1-3/8 ± 1/16	1/2	
651268	350	3-9/16	2-1/4	6-1/2 + 1/4	1-1/2	1/2	
651269	400	3-9/16	2-1/4	6-1/2 + 1/4	1-5/8 ± 1/32	1/2	
651270	500	3-9/16	2-1/4	7 + 1/2	1-3/4	1/2	
651294	500	3-9/16	2-1/4	7 + 1/2	1-3/4	5/8	
651271	600	3-5/8	3	7-1/2 + 1/2	1-3/4	1/2	
651274	700	3-5/8	3	7-1/2 + 1/2	1-3/4	1/2	
651275	700	3-5/8	3	7-1/2 + 1/2	1-3/4	5/8	
651272	750	3-5/8	3	7-3/4 + 1/2	1-3/4	1/2	
651295	1000	3-5/8	3	10	2-9/16	1/2	
651296*	1000	3-5/8	3	10	3*	1/2	

* 4-Hole NEMA Pad

Table 4b. Stacking Connector Dimensions

Stock No.	Conductor Size (AWG/kcmil)	Dimensions (in)					Hole Diameter, nominal
		A, max.	C, min.	D, min.	L	W (Pad Width)	
651276	4/0	3-3/8	1-7/8	1-3/4	5-5/16	1-3/16	1/2
651277	350	3-9/16	2-3/8	2-1/4	6-1/2 + 1/4	1-1/2	1/2
651278	500	3-9/16	2-5/8	2-1/4	7 + 1/2	1-3/4	5/8
651279	750	3-5/8	3	3	7-3/4 + 1/2	1-3/4	5/8

5. Marking

Connectors shall be legibly marked with the following:

- Conductor size
- Die number
- Number of crimps
- Manufacturer name or trademark
- Catalog number

6. Packaging

Package shall be legibly marked with the following information:

- Manufacturer identification
- Product catalog part number
- Product description
- SCL stock number

Each shipping container shall be legibly marked with the following information:

- Manufacturer identification
- Seattle City Light purchase order number

7. Issuance

EA

8. Approved Manufacturers

8.1 Non-Stacking Connectors

Stock No.	Conductor Size (kcmil), nominal	Connector Size (in)	Approved Manufacturers			
			Hubbell Power Systems/Anderson	ABB/Thomas & Betts/ Homac	MAC Products, Inc.	Richards Manufacturing
651267	300	1/2	AHL-300-BN-TP	AL300-NTN	MLB 300-8N-HV	AL14-2N
651268	350	1/2	AHL-350-BN-TP	AL350-NTN	MLB 350-8N-HV	AL15-2N
651269	400	1/2	–	AL400-NTN	MLB 400-8N-HV	–
651270	500	1/2	AHL-500-BN-TP	AL500-NTN	MLB 500-8N-HV	AL18-2N
651294	500	5/8	–	–	MLB 500-9N-HV	–
651271	600	1/2	AHL-600-BN-TP	AL600-NTN	MLB 600-8N-HV	AL20-2N
651274	700	1/2	AHL-700-BN-TP	AL700-N-608-TN	–	–
651275	700	5/8	–	AL700-258-608-TN	–	–
651272	750	1/2	AHL-750-BN-TP	AL750-NTN	MLB 750-8N-HV	AL23-2N
651295	1000 STR	1/2	AHL-1000-BN-TP	AL1000-NTN	–	AL28-2N-W
651296	1000 (feeder only w/ 4-hole NEMA pad)	1/2	–	AL1000-4NTN	MLB1000-8N-4-HV	–

8.2 Stacking Connectors

Stock No.	Conductor Size (kcmil), nominal	Connector Size (in)	Approved Manufacturers			
			Hubbell Power Systems/Anderson	ABB/Thomas & Betts/Homac	MAC Products, Inc.	Richards Manufacturing
651276	4/0	1/2	ATL-4/0-BN-TP	ASL4/0-NTN	MLB 4/0-NT-HV	ASL12-2N
651277	350	1/2	ATL-350-BN-TP	ASL350-NTN	MLB 350-NT-HV	ASL15-2N
651278	500	5/8	ATL-500-BN-TP-SCL	ASL500-258-TN	MLB 500-9NT75-HV	ASL18-2N-5/8
651279	750	5/8	ATL-750-BN-TP-SCL	ASL750-258-TN	MLB 750-9NT75-HV	ASL23-2N-5/8

9. Sources

SCL Material Standard 6770.70; "Terminals, Compression, Copper, Tin-Plated"

SCL Material Standard 6774.8," Connector, Terminal – Tin-Plated Aluminum Compression, Stacking and Non-Stacking" (Canceled)

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